

AMENDMENT TO THE SPECIFICATION

Please replace paragraph [0026] with the following paragraph:

[0026] The following drawings form part of the present specification and are included to further demonstrate certain aspects of the present invention. The invention may be better understood by reference to one or more of these drawings in combination with the detailed description of specific embodiments presented herein:

FIG. 1 shows repeat expansion detection (RED) analysis of affected and unaffected individuals.

FIG. 2 shows a Western blot of SCA10 lymphoblastoid cells using mAb 1C2.

FIG. 3a shows pedigrees of four families studied for the SCA10 mutation.

FIG. 3b: shows PCR analysis of the ATTCT pentanucleotide repeat using primers of the sequence of SEQ ID NO:3 and SEQ ID NO:4.

FIG 3c shows Southern analysis of expansion mutations of the ATTCT repeat region.

FIG. 4a shows a schematic presentation of the structure of the *SCA10* gene.

FIG. 4b shows a restriction map of the ATTCT repeat region.

FIG. 4b 4c shows the nucleotide sequence of ATTCT repeat.

FIG. 5 shows distribution of the ATTCT repeat alleles in normal populations.

FIG. 6 shows correlation between the size of expanded SCA10 ATTCT repeat and the age of onset in 26 SCA10 patients.

FIG. 7 shows *in situ* hybridization of radiolabeled probes to horizontal sections of 4-month-old adult (a-d) and 10 day old juvenile (e) mouse brain.

FIG. 8 shows a Northern blot of SCA10 mRNA in lymphoblastoid cell lines of SCA10 patients and unaffected individuals.

FIG. 9 shows PCR analysis of the ATTCT expansion in spinocerebellar ataxia type 10 (SCA10). Lanes 1 and 2 are for SCA10 patients, whereas lanes 3-18 are normal controls.

SEQUENCE SUMMARY

SEQ ID NO: 1. Peptide sequence of human mouse Brain Protein E46-like sequence

SEQ ID NO: 2. Nucleotide sequence of the coding region of human mouse Brain Protein E46-like sequence

SEQ ID NO: 3. Nucleotide sequence of attct-L primer

SEQ ID NO: 4. Nucleotide sequence of attct-R primer

SEQ ID NO: 5. Nucleotide sequence of ATTCT repeat

SEQ ID NO: 6. Nucleotide sequence of DanL primer

SEQ ID NO: 7. Nucleotide sequence of DanR primer

SEQ ID NO: 8. Nucleotide sequence of E46A probe

SEQ ID NO: 9. Nucleotide sequence of E46B probe

SEQ ID NO: 10. Nucleotide sequence of forward primer for PCR

SEQ ID NO: 11. Nucleotide sequence of reverse primer with hanging tail for PCR

SEQ ID NO: 12. Nucleotide sequence of mE46A probe.

SEQ ID NO: 13. Nucleotide sequence for mE46B probe.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2375, under Order No. HO-P02039US1 from which the undersigned is authorized to draw.

Dated: *May 13, 2004*

Respectfully submitted,

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